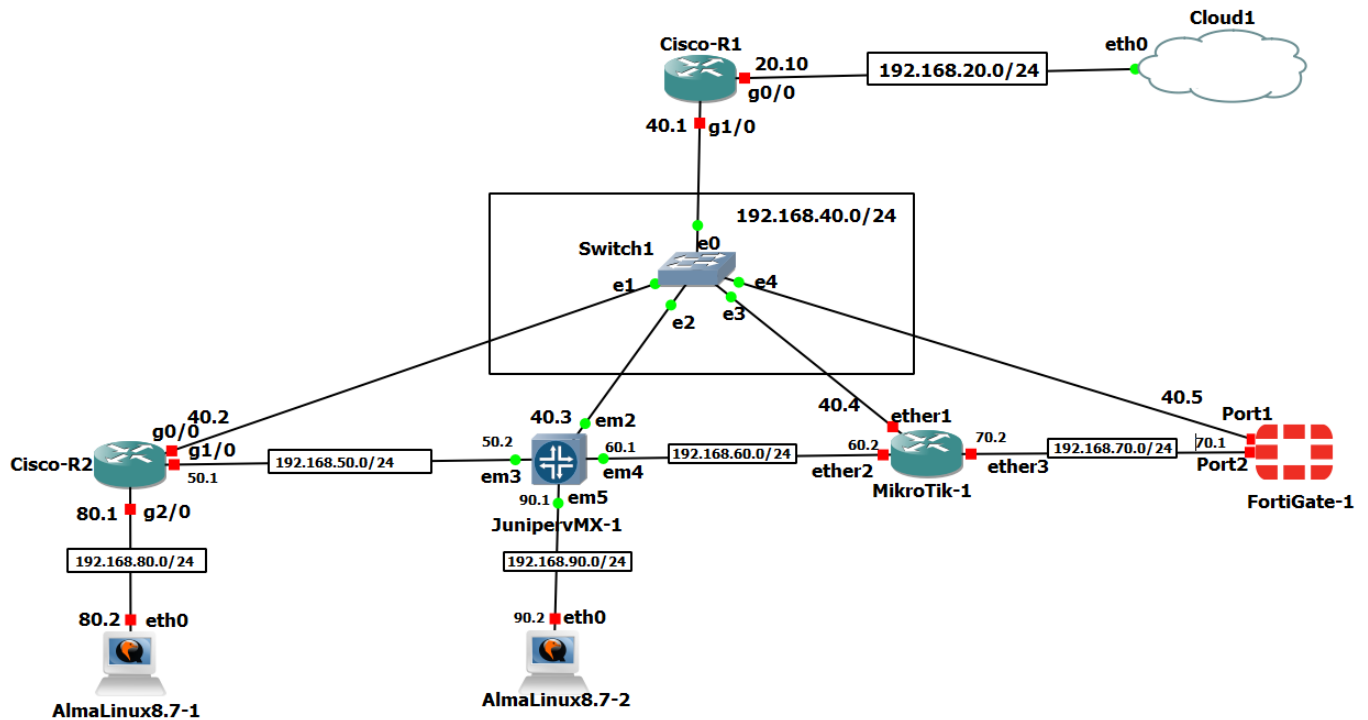# Router Configuration for NMS Lab

## Network Topology



## Configure CISCO-R1:

```
interface GigabitEthernet0/0
 ip address 192.168.20.10 255.255.255.0
 negotiation auto
 no shutdown
```

```
interface GigabitEthernet1/0
 ip address 192.168.40.1 255.255.255.0
 negotiation auto
 no shutdown
```

### Routing Configuration

```
router rip
 version 2
 network 192.168.40.0
 network 192.168.20.0
```

SNMP Configuration:

```
# configure terminal
# snmp-server community public RO
```

## Configure CISCO-R2:

```
interface GigabitEthernet1/0
 ip address 192.168.50.1 255.255.255.0
 negotiation auto
 no shutdown
```

```
interface GigabitEthernet0/0
 ip address 192.168.40.2 255.255.255.0
 negotiation auto
 no shutdown
```

```
interface GigabitEthernet2/0
 ip address 192.168.80.1 255.255.255.0
 negotiation auto
 no shutdown
```

Routing Configuration

```
router rip
 version 2
 network 192.168.40.0
 network 192.168.50.0
 network 192.168.80.0
```

SNMP Configuration:

```
# configure terminal
# snmp-server community public RO
```

## Configure Juniper-vMX-1:

Set Password

```
root@% cli
root> configure
Entering configuration mode
[edit]
```

```
root# edit system
[edit system]


root# set root-authentication plain-text-password


New password:
Retype new password:


[edit system]


root# commit
root# exit
root> exit
root@% reboot
```

Configure Interface IP address:

```
% cli


> configure


root# set interfaces em5 unit 0 family inet address 192.168.90.1/24
root# set interfaces em4 unit 0 family inet address 192.168.60.1/24
root# set interfaces em3 unit 0 family inet address 192.168.50.2/24
root# set interfaces em2 unit 0 family inet address 192.168.40.3/24
root# commit
root# exit


root> show interfaces terse
```

Routing Configuration:

```
root> configure
root# edit protocols rip
[edit protocols rip]
root# set group RIP-LAB neighbor em5
root# set group RIP-LAB neighbor em4
root# set group RIP-LAB neighbor em3
root# set group RIP-LAB neighbor em2
root# exit

```

```
root# set policy-options policy-statement RIP-POLICY term 1 from protocol rip
root# set policy-options policy-statement RIP-POLICY term 1 from protocol direct
root# set policy-options policy-statement RIP-POLICY term 1 then accept


root# edit protocols rip
[edit protocols rip]
root# set group RIP-LAB export RIP-POLICY
root# exit
root# commit
root# exit


root> show route protocol rip
root>
```

SNMP Configure:

```
set snmp name Junos-vMX-R1
set snmp description NMS-BootCamp-1
set snmp location NMS-LAB
set snmp client-list SIEM 192.168.20.130/16
set snmp community public authorization read-only
set snmp community public client-list-name SIEM
```

## Configure MikroTik -1:

IP Address configure:

```
[admin@MikroTik] > ip address
[admin@MikroTik] /ip address> print
Flags: X - disabled, I - invalid, D - dynamic
 #   ADDRESS            NETWORK         INTERFACE
[admin@MikroTik] /ip address> add address=192.168.40.4/24 interface=ether1


[admin@MikroTik] /ip address> print
Flags: X - disabled, I - invalid, D - dynamic
 #   ADDRESS            NETWORK         INTERFACE
 0   192.168.40.4/24    192.168.40.0    ether1



[admin@MikroTik] /ip address> add address=192.168.60.2/24 interface=ether2
[admin@MikroTik] /ip address> add address=192.168.70.2/24 interface=ether3
```

```
[admin@MikroTik] /ip address> print
Flags: X - disabled, I - invalid, D - dynamic
 #   ADDRESS              NETWORK           INTERFACE
 0   192.168.40.4/24      192.168.40.0      ether1
 1   192.168.60.2/24      192.168.60.0      ether2
 2   192.168.70.2/24      192.168.70.0      ether3


[admin@MikroTik] /ip address> /ip route


[admin@MikroTik] /ip route> add gateway=192.168.40.1
```

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FortiGate

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FortiGate-VM64-KVM login: admin

Password:

Welcome !

```
FortiGate-VM64-KVM # config system interface

FortiGate-VM64-KVM (interface) # edit port1

FortiGate-VM64-KVM (port1) # set mode static

FortiGate-VM64-KVM (port1) # set ip 192.168.40.5/24

FortiGate-VM64-KVM (port1) # set allowaccess ping https ssh http snmp telnet

FortiGate-VM64-KVM (port1) # next

FortiGate-VM64-KVM (interface) # end

FortiGate-VM64-KVM # config system interface

FortiGate-VM64-KVM (interface) # edit port2

FortiGate-VM64-KVM (port1) # set mode static
```

```
FortiGate-VM64-KVM (port1) # set ip 192.168.70.1/24

FortiGate-VM64-KVM (port1) # set allowaccess ping https ssh http snmp telnet

FortiGate-VM64-KVM (port1) # next

FortiGate-VM64-KVM (interface) # end


FortiGate-VM64-KVM # config router static

FortiGate-VM64-KVM (static) # edit 1

new entry '1' added

FortiGate-VM64-KVM (1) #  set gateway 192.168.40.1

FortiGate-VM64-KVM (1) # set device port1

FortiGate-VM64-KVM (1) # next

FortiGate-VM64-KVM (static) # end
```

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Static Route from Windows

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route ADD 192.168.40.0 MASK 255.255.255.0 192.168.20.10


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Static Route from Linux

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ip route add 192.168.40.0/24 via 192.168.20.10 dev ens37